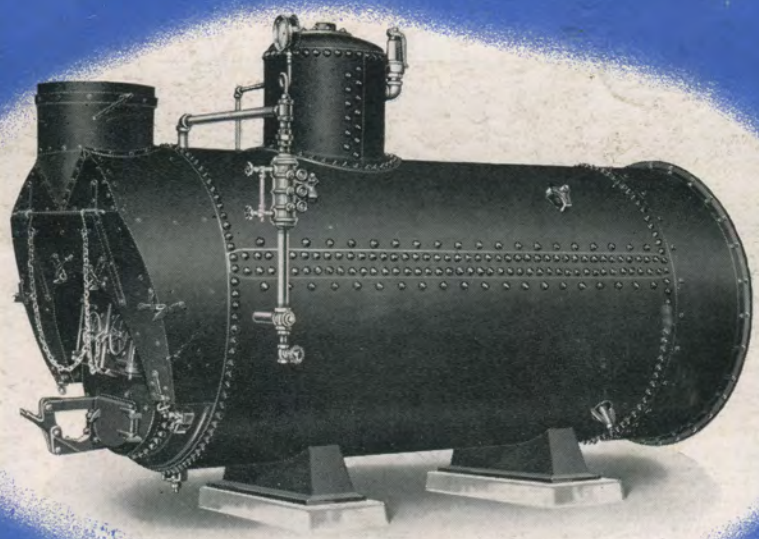
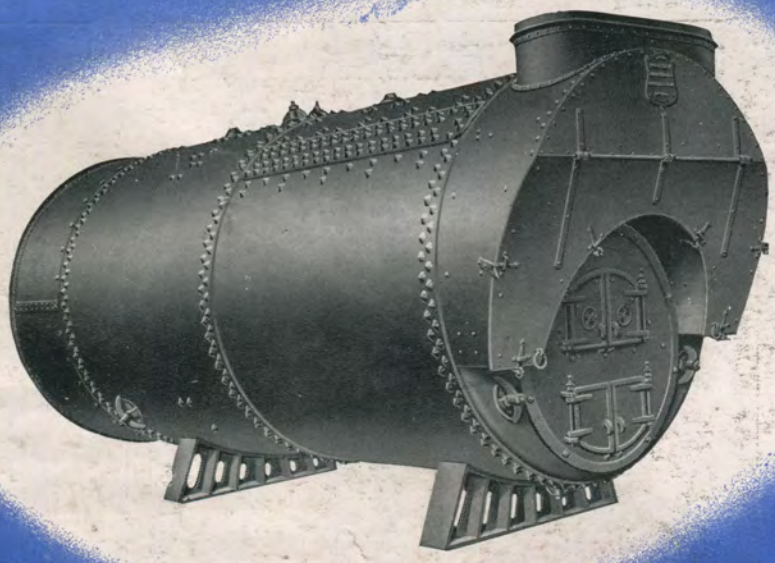


10 TO 75 H. P.

SCOTCH MARINE BOILERS



100 TO 300 H. P.

B-112

BOILERS TURBINES ENGINES

MURRAY IRON WORKS CO.

INCORPORATED 1870

BURLINGTON, IOWA

MURRAY

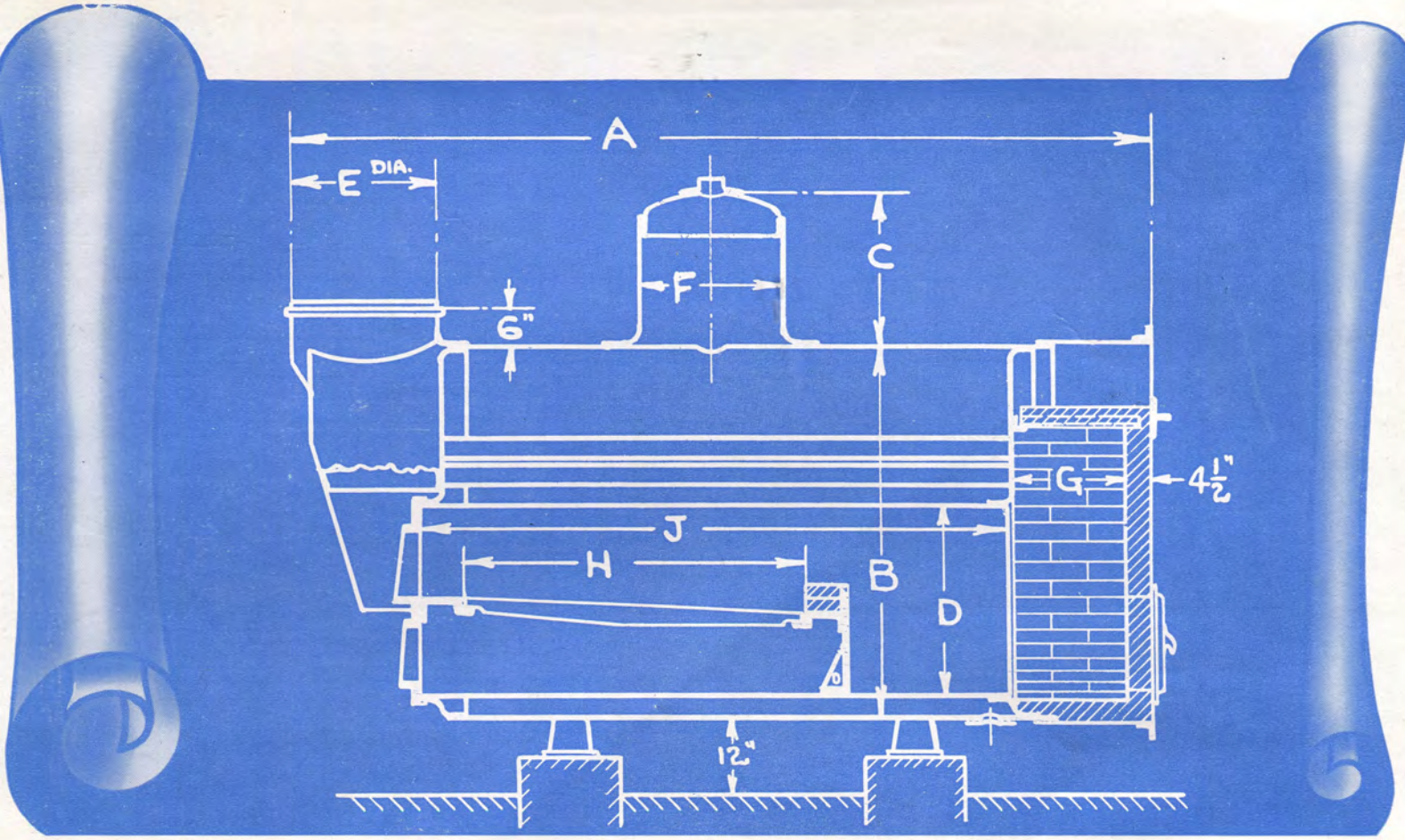
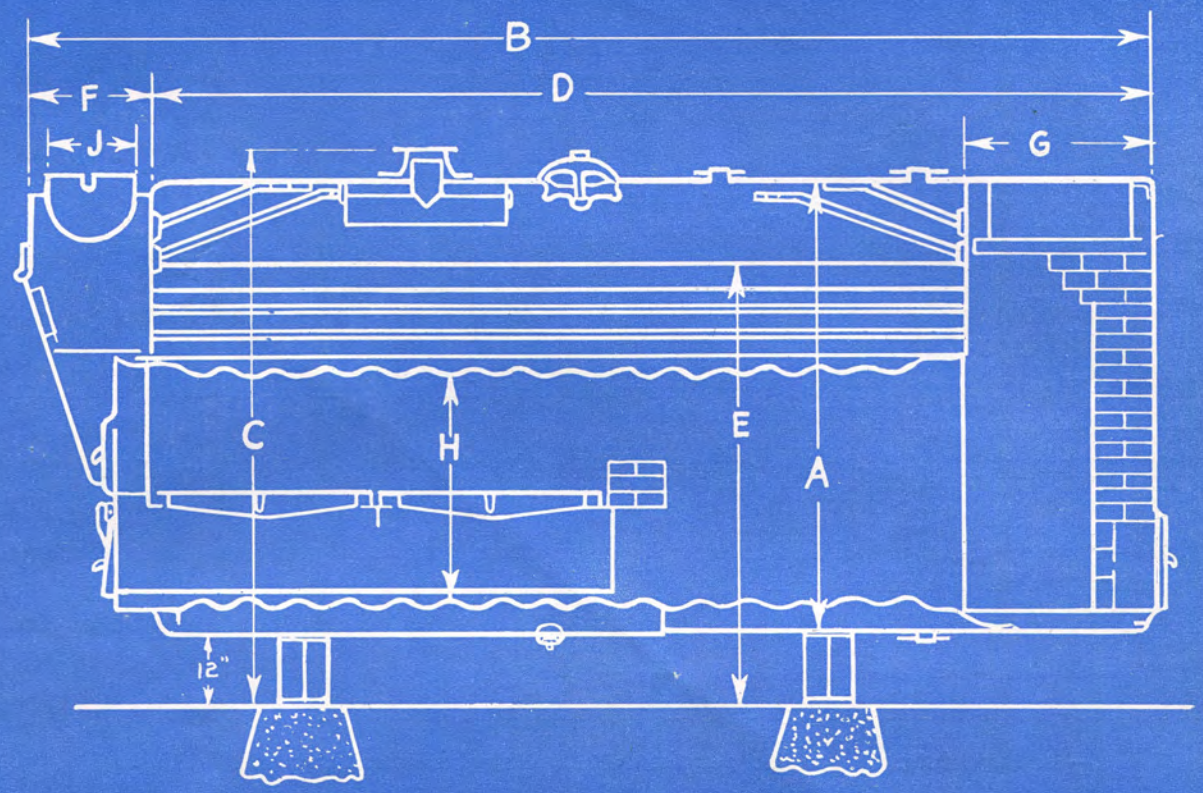


TABLE OF SIZES AND DIMENSIONS 10 TO 75 H. P.

H. P. AS RATED.....	10	15	20	25	30	40	50	60	75
SQ. FT. HEATING SURFACE.....	101	151	203	251	306	403	505	602	751
OVERALL LENGTH.....A	8'-10"	9'- 5"	10'- 11"	11'- 2"	11'- 7"	13'- 2"	15'- 9"	15'- 4"	16'- 0"
DIAMETER OF SHELL.....B	36"	43"	45"	48"	54"	60"	60"	66"	72"
SIZE OF DOME.....C & F	18"x 18"	18"x 18"	18"x 18"	18"x 18"	22"x 22"	22"x 22"	22"x 22"	22"x 22"	22"x 22"
DIAMETER OF FURNACE.....D	20"	25"	26"	26"	28"	30"	32"	34"	36"
LENGTH OF FURNACE.....J	6'- 6"	7'- 0"	8'- 0"	8'- 0"	8'- 0"	9'- 6"	11'- 9"	11'- 0"	11'- 6"
TYPE OF FURNACE.....	Plain	Plain	Plain	Plain	Plain	Adam.	Adam.	Adam.	Adam.
LENGTH OF GRATES .....H	2'- 8"	3'- 0"	4'- 0"	5'- 0"	5'- 0"	5'- 0"	6'- 0"	6'- 0"	6'- 0"
AREA OF GRATES SQ. FT.....	4.6	6.5	8.3	10.4	11.5	12.1	15.5	16.5	17.5
WIDTH OF REAR CHAMBER.....G	11½"	11½"	15½"	15½"	18½"	17½"	19½"	21½"	23½"
No. 3" TUBES STD. COAL FIRED....	14	20	26	32	41	46	46	60	73
No. 2" TUBES GAS OR OIL FIRED...	21	30	33	48	61	69	69	90	110
LENGTH OF TUBES.....	6'- 6"	7'- 0"	8'- 0"	8'- 0"	8'- 0"	9'- 6"	11'- 9"	11'- 0"	11'- 6"
SIZE OF STEAM OPENING.....	1½"	2"	2"	2"	2½"	2½"	3"	3"	3"
SIZE OF FEED OPENING.....	1"	1½"	1½"	1½"	1½"	1½"	1½"	1½"	1½"
SIZE OF BLOW OFF.....	1½"	1½"	1½"	1½"	1½"	1½"	1½"	1½"	1½"
DIAMETER OF STACK.....E	12"	13"	15"	18"	20"	22"	24"	26"	26"
LENGTH OF STACK REQUIRED.....	20'	20'	30'	30'	30'	40'	40'	50'	60'
WEIGHT OF GRATES.....	300	400	425	500	650	750	975	1075	1175
WEIGHT COMPLETE 100lb S. W.....	3700	5800	6850	8200	9850	11700	13100	14100	16900



SCOTCH MARINE BOILERS 100 TO 300 H. P.

H. P. AS RATED	100	125	150	175	200	225	250	275	300
HEATING SURFACE	1004	1255	1506	1760	2022	2236	2508	2750	3012
DIAMETER OF SHELL	6'- 6"	7'- 0"	7'- 6"	8'- 0"	8'- 6"	8'- 6"	9'- 0"	9'- 0"	9'- 6"
LENGTH OVERALL	17'- 9"	18'- 3"	18'- 4"	18'- 10"	19'- 9"	21'- 3"	21'- 2"	22'- 8"	22'- 4"
HEIGHT OVERALL	8'- 1"	8'- 8"	9'- 3"	9'- 9"	10'- 3"	10'- 3"	10'- 9'	10'- 9"	11'- 3"
LENGTH OF SHELL	16'- 0"	16'- 3"	16'- 2"	16'- 8"	17'- 5"	18'- 11"	18'- 8"	20'- 2"	20'- 8"
DIAMETER OF FURNACE	39"	42"	45"	48"	51"	51"	54"	54"	57"
TYPE OF FURNACE	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.
No. OF 3" TUBES	82	103	133	143	166	166	196	196	222
LENGTH OF TUBES	13'- 4"	13'- 4"	13'- 0"	13'- 6"	14'- 0"	15'- 6"	15'- 0"	16'- 6"	16'- 0"
SIZE OF STEAM OUTLET	5"	6"	6"	6"	6"	8"	8"	8"	8"
SIZE OF FEED PIPE	1½"	2"	2"	2"	2"	2"	2"	2 - 2"	2 - 2"
SIZE OF BLOW OFF	2"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
LENGTH OF GRATES	6'- 6"	7'- 0"	8'- 0"	8'- 0"	8'- 6"	9'- 0"	8'- 6"	9'- 0"	9'- 0"
WIDTH OF GRATES	3'- 3"	3'- 6"	3'- 9"	4'- 0"	4'- 3"	4'- 3"	4'- 6"	4'- 6"	4'- 9"
AREA OF GRATES SQ. FT	21	25	30	32	36	38	38	41	43
WEIGHT OF GRATES	1500	1700	2100	2250	2500	2650	2650	2800	3000
WIDTH OF SMOKE OUTLET	15"	18"	20"	20"	22"	22"	24"	24"	28"
LENGTH SMOKE OUTLET	48"	51"	60"	66"	68"	68"	72"	72"	78"
DIAMETER OF STACK REQUIRED	29"	33"	38"	40"	42"	42"	45"	45"	48"
HEIGHT OF STACK REQUIRED	65'	70'	70'	75'	75'	75'	80'	80'	85'
WEIGHT BOILER COMPLETE 100lb	26000	30000	33000	36000	42000	45000	46000	49000	50000

SCOTCH MARINE TYPE

THE MURRAY **SCOTCH MARINE** boiler fills all of the qualifications of an ideal boiler and is the simplest type of self-contained boiler on the market. It embodies all features which are necessary in any successful boiler.

SAFETY—All surfaces cylindrical; requires no staybolts; plates used in construction of the proper thickness for desired pressure.

SIMPLICITY—Tubes are straight, shell and furnace simple cylinders, therefore repairs can be made readily, using most ordinary tools.

ACCESSIBILITY—Large openings properly located make all interior parts of boiler easily accessible for cleaning and washing out.

ECONOMY—Its economical use of fuels results in more steam generated per pound of fuel than in any other type of fire tube boiler.

COST—No expensive brick work or foundations simplify installation, which means lower installed cost.

FLOOR SPACE—Requires less floor space than any other type or style of boiler.

HEAD ROOM—Its large internal furnace permits installation where head room is limited.

DESIGN—Meets most exacting demands for economy and long life.

CONSTRUCTION—All boilers constructed A. S. M. E. and boiler laws of locality in which they are to be used.

PRESSURES—Built in all pressures from 100 lbs. up.

TRIMMINGS—Standard trimmings and fittings regularly furnished with boiler consist of the following:

Front, rocking grates, cradles, and the following steam trimmings: Steam gauge and syphon, water column with water glass and gauge cocks, safety valves and blow-off valves.

On boilers 10 to 75 H.P., the rear combustion chamber is refractory lined before shipment. Boilers 100 H.P. and up are furnished without refractory lining in the combustion chamber.

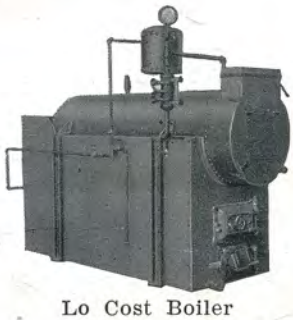
Sizes 10 to 75 H.P. Can be Equipped With 2″ Tubes FOR GAS OR OIL FIRING When So Desired.

Vertical Boiler

MURRAY IRON WORKS CO.

INCORPORATED 1870

BURLINGTON, IOWA, U. S. A.



Lo Cost Boiler

Printed in U.S.A.